











Team 47: Roland Graham, Esther Sun, Leo Zhou, Manya Shah, Arushi Dheer



# OVERVIEW

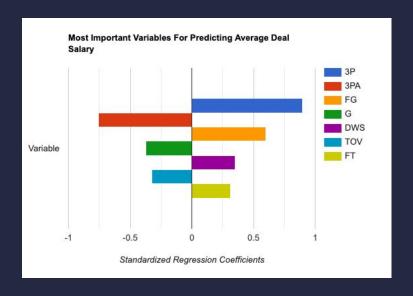
Situation Problem		Considerations	Solution		
<ul> <li>The Denver         Nuggets need to replace the shooting forward position for next season     </li> <li>The position may have 2 potential openings</li> </ul>	<ul> <li>Need to choose one of three candidates to fill the shooting forward position</li> <li>Select a backup candidate due to the possible departure of Jerami Grant</li> </ul>	<ul> <li>Select free agents with the best shooting and offensive skills</li> <li>\$26 million on free agent picks before hitting luxury tax threshold</li> </ul>	<ul> <li>Compare career stats between three candidates</li> <li>Build a valuation model on overall NBA player salaries</li> <li>Compare with candidate's previous contracts to assess value</li> </ul>		



Multiple Linear Regression	LASSO Regression	
Reason for testing: Backward-Stepwise Selection for reducing variables	Reason for testing: Accounts for multicollinearity in the selection process	
Measures of Fit:  R-Squared: 0.7602 MSE: 2,052,276	Measures of Fit:  R-Squared: 0.7649 MSE: 3,403,819	



## **Model Summary**



<u>Variables Most Correlated</u> <u>With Average Salary</u>	Correlation Coefficient (r)
Points	0.7878
Field Goals	0.7758
Win Shares	0.7737

Variables Most Correlated With Each Other	Correlation Coefficient (r)
Points & Field Goals	0.9909
Points & Attempted Field Goals	0.9857
Field Goals & Attempted Field Goals	0.9818

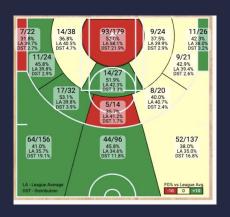


## **Candidate Valuation and Career Stats**

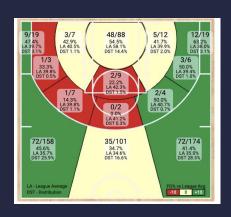
Candidate	Projected Annual Valuation	Previous Contract Annual Salary	2-Point Field Goal Success	3-Point Field Goal Success	Free Throw Success Rate	Offensive Rebounds	Assists	Steals
Danny Glover	\$22,256,528	\$21,666,667	46.5%	38%	87.3%	0.7	2	0.8
David Bowie	\$16,447,223	\$7,000,000	52.6%	41.1%	84.9%	0.4	1.1	0.4
Mike Meyers	\$14,670,416	\$15,000,000	47.4%	36.7%	75.9%	1	1.5	0.7



### **Candidate Valuation and Career Stats**



**Glover Shot Chart** 



**Bowie Shot Chart** 



**Meyers Shot Chart** 



#### Recommendations

Primary: Select David Bowie as the new Shooting Forward

- Worth significantly more to the team than his previous contracts
- Highest 2-point and 3-point field goal success rate
- Second-highest free throw success rate among the three candidates
- Best shooting accuracy at the top of the key and low post

Secondary: Select Mike Meyers as a backup for that position

- Can hire him without going over luxury tax threshold
- No overall significant differences between his and Danny Glover's career stats
- Wide range of areas with accurate shooting

